

Title (en)
A METHOD FOR PRODUCING ACID RESISTANT MACROBEADS CONTAINING NANOPARTICLES AND USE OF THE MACROBEADS FOR ELICITING AN IMMUNE RESPONSE

Title (de)
VERFAHREN ZUR HERSTELLUNG SÄURERESISTENTER MAKROKÜGELCHEN MIT NANOPARTIKELN UND DIE VERWENDUNG DER MAKROKÜGELCHEN ZUM AUSLÖSEN EINER IMMUNANTWORT

Title (fr)
PROCÉDÉ DE PRODUCTION DE MACROBILLES CONTENANT DES NANOPARTICULES RÉSISTANT AUX ACIDES ET UTILISATION DE MACROBILLES POUR DÉCLENCHER UNE RÉPONSE IMMUNITAIRE

Publication
EP 3536312 A1 20190911 (EN)

Application
EP 18160647 A 20180308

Priority
EP 18160647 A 20180308

Abstract (en)
The present invention relates to methods and means for the production of alginate/chitosan acid-resistant macrobeads comprising alginate/chitosan nanoparticles, wherein the nanoparticles comprise a bioactive agent, wherein the bioactive agent is associated via physicochemical interaction with a polymer. The invention further relates to nanoparticles and/or macrobeads obtained by methods of the invention and such nanoparticles and/or macrobeads for use in eliciting an immune response in an animal. Also encompassed by the invention is the use of a porcine epidemic diarrhea virus (PEDV) antigen as defined herein for producing a nanoparticle or acid-resistant macrobeads and a vaccine comprising such an antigen.

IPC 8 full level
A61K 9/50 (2006.01); **A61K 38/00** (2006.01); **A61K 39/00** (2006.01)

CPC (source: EP)
A61K 9/5036 (2013.01); **A61K 39/12** (2013.01); **A61P 31/14** (2017.12); **A61K 2039/5252** (2013.01); **A61K 2039/5254** (2013.01); **A61K 2039/53** (2013.01); **A61K 2039/542** (2013.01); **A61K 2039/5555** (2013.01); **C12N 2770/10034** (2013.01)

Citation (applicant)
• LI ET AL., JOURNAL OF BIOMEDICAL MATERIALS RESEARCH, vol. 83A, no. 2, 2007, pages 383 - 390
• MACHADO ET AL., LANGMUIR, vol. 29, no. 51, 2013, pages 15926 - 15935
• JIAN ET AL., BIOTECHNOLOGY AND BIOPROCESS ENGINEERING, vol. 12, 2007, pages 684 - 689

Citation (search report)
• [XY] WO 2005013941 A1 20050217 - FOND CARLO E DIRCE CALLERIO ON [IT], et al
• [XY] VANDENBERG G W ET AL: "Factors affecting protein release from alginate-chitosan coacervate microcapsules during production and gastric/intestinal simulation", JOURNAL OF CONTROLLED RELEASE, ELSEVIER, AMSTERDAM, NL, vol. 77, no. 3, 13 December 2001 (2001-12-13), pages 297 - 307, XP004328582, ISSN: 0168-3659, DOI: 10.1016/S0168-3659(01)00517-X

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3536312 A1 20190911; TW 201946615 A 20191216; WO 2019170802 A1 20190912

DOCDB simple family (application)
EP 18160647 A 20180308; EP 2019055687 W 20190307; TW 108107657 A 20190307